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WHAT IS CLAIMED IS:

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1. A pixel defect detector for a solid-state imaging device comprising a plurality of photoelectric transducers, the pixel defect detector comprising:

a calculation section for obtaining output characteristics of a subject photoelectric transducer for varied amounts of light incident thereupon so as to determine the presence/absence of a defect in the subject photoelectric transducer based on the output characteristics thereof.

2. A pixel defect detector for a solid-state imaging device according to claim 1, wherein:

the pixel defect detector further comprises a picture memory for storing an output signal from the photoelectric transducer; and

the calculation section determines the output characteristics of the subject photoelectric transducer using the output signal of the subject photoelectric transducer stored in the picture memory.

3. A pixel defect detector for a solid-state imaging device according to claim 1, wherein:

the output characteristics of the subject photoelectric transducer are represented by a plurality of output signals of the subject photoelectric transducer in response to different amounts of light incident thereupon, respectively.

4. A pixel defect detector for a solid-state imaging device comprising a plurality of photoelectric transducers, the pixel defect detector comprising:

a picture memory for storing outputs from a subject photoelectric transducer in response to different amounts of light incident thereupon, respectively; and

a calculation section for determining a photoelectric coefficient a of the subject photoelectric transducer and an offset output level b of the subject photoelectric transducer in the absence of incident light based on the amounts of incident light, the outputs from the subject photoelectric transducer therefor, and Expression (1) below, so as to compare the photoelectric coefficient a and the offset output level b with a predetermined reference photoelectric coefficient a_0 and a predetermined reference offset output level b_0 , respectively, thereby determining the presence/absence of a defect in the subject photoelectric transducer:

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$$y(x)=ax+b \quad \dots (1)$$

where $y(x)$ denotes the output of the subject photoelectric transducer, and x denotes the amount of incident light.

5. A pixel defect detector for a solid-state imaging device according to claim 1, wherein:

the pixel defect detector further comprises an optical system for projecting a picture onto the solid-state imaging device; and

the output of the photoelectric transducer is determined while the optical system is defocused with respect to the solid-state imaging device.

6. A pixel defect detector for a solid-state imaging device according to claim 4, wherein:

the pixel defect detector further comprises an optical system for projecting a picture onto the solid-state imaging device; and

the output of the photoelectric transducer is determined while the optical system is defocused with respect to the solid-state imaging device.

7. A pixel defect detector for a solid-state imaging

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device according to claim 1, wherein:

the amounts of light incident upon the subject photoelectric transducer comprise an amount of incident light when no light is incident upon the solid-state imaging device and another amount of incident light which brings the solid-state imaging device to a near-overflow state.

8. A pixel defect detector for a solid-state imaging device according to claim 4, wherein:

the amounts of light incident upon the subject photoelectric transducer comprise an amount of incident light when no light is incident upon the solid-state imaging device and another amount of incident light which brings the solid-state imaging device to a near-overflow state.

9. A pixel defect detector for a solid-state imaging device according to claim 4, wherein:

the amount of incident light x is determined by applying, to Expression (2) below, the predetermined reference photoelectric coefficient a_0 , the predetermined reference offset output level b_0 , and a reference output signal y_0 :

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$$x = (y_0 - b_0) / a_0 \quad \dots (2).$$

10. A pixel defect detector for a solid-state imaging device according to claim 9, wherein:

the output y_0 is set to a median among outputs from a plurality of photoelectric transducers neighboring the subject photoelectric transducer.

11. A pixel defect detector for a solid-state imaging device according to claim 10, wherein:

the neighboring photoelectric transducers comprise only those which display the same one of a plurality of colors to be displayed as that of the subject photoelectric transducer.

12. A pixel defect detector for a solid-state imaging device according to claim 4, wherein:

the presence/absence of a defect in the subject photoelectric transducer is determined by applying the photoelectric coefficient a of the subject photoelectric transducer, the offset output level b of the subject photoelectric transducer, the reference photoelectric coefficient a_0 , and the reference offset output level b_0 , to Expression (3) below:

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no defect, if $|a_0 - a| < \Delta a$ and $|b_0 - b| < \Delta b$... (3)

where Δa and Δb are predetermined threshold values.

13. A pixel defect detector for a solid-state imaging device according to claim 4, wherein:

the presence/absence and the type of defect in the subject photoelectric transducer are determined by applying the photoelectric coefficient a of the subject photoelectric transducer, the offset output level b of the subject photoelectric transducer, the reference photoelectric coefficient a_0 , and the reference offset output level b_0 , to Expression (4) below:

no defect, if $|a_0 - a| < \Delta a$ and $|b_0 - b| < \Delta b$;
a black blemish, if $|a_0 - a| \geq \Delta a$; and
a white blemish, if $|b_0 - b| \geq \Delta b$...

(4)

where Δa and Δb are predetermined threshold values.

14. A pixel defect detector for a solid-state imaging device according to claim 12, wherein:

the reference photoelectric coefficient a_0 and the reference offset output level b_0 are prescribed for

each of the colors to be displayed.

15. A pixel defect detector for a solid-state imaging device according to claim 13, wherein:

the reference photoelectric coefficient a_0 and the reference offset output level b_0 are prescribed for each of the colors to be displayed.

16. A pixel defect detector for a solid-state imaging device according to claim 12, wherein:

the pixel defect detector further comprises a determination section for determining a color to be displayed by the subject photoelectric transducer based on address data of the subject photoelectric transducer; and

the reference photoelectric coefficient a_0 and the reference offset output level b_0 are prescribed based on the determination by the determination section.

17. A pixel defect detector for a solid-state imaging device according to claim 13, wherein:

the pixel defect detector further comprises a determination section for determining a color to be displayed by the subject photoelectric transducer based

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	

the reference photoelectric coefficient a_0 and the reference offset output level b_0 are prescribed based on the determination by the determination section.